



## ABSTRACT

The present invention provides amino acid sequences and transcript sequences that are encoded by 511 genes within the *Drosophila melanogaster* genome that are essential for survival, the Drosophila proteins of the present invention. The present invention specifically provides isolated protein and nucleic acid molecules, methods of identifying orthologs and paralogs of the Drosophila proteins and methods of identifying modulators of the Drosophila proteins (e.g. insecticides).

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